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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,582	04/21/2004	Marck K. Pakulski	020569-07400 (P504-1370-U)	6722
54487 7590 02/22/2007 JONES & SMITH, LLP THE RIVIANA BUILDING 2777 ALLEN PARKWAY, SUITE 800 HOUSTON, TX 77019-2141			EXAMINER JOHNSON, EDWARD M	
			ART UNIT 1754	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/829,582

Applicant(s)

PAKULSKI ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5-6, 8-14, and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Warrender et al. US 6,267,938.

Regarding claims 1, 14, 21, and 23, Warrender '938 discloses a hydrogen sulfide scavenger comprising monoethanolamine (see abstract) or polyamines (see column 7, lines 26-48).

Regarding claims 5-6, 8-13, and 17-22, Warrender '938 discloses monoethanolamine, polyamines, and morpholine (see Table 2).

3. Claims 1, 5-6, 8-14, and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oakes et al. US 4,452,764.

Art Unit: 1754

Regarding claims 1, 14, 21, and 23 Oakes '764 discloses a composition for treating hydrogen sulfide and carbon dioxide (see column 1, lines 15-21 and column 2, lines 44-48), comprising monoethanolamine or polyamines (see column 2, lines 39-43).

Regarding claims 5-6, 8-13, and 17-22, Oakes '764 discloses monoethanolamine or polyamines (see column 2, lines 39-43).

4. Claims 1, 5-6, 8-14, and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pounds et al. US 5,462,721.

Regarding claims 1, 14, 21, and 23, Pounds '721 discloses a composition for hydrogen sulfide scavenging comprising monoethanolamine or polyamines (see abstract and column 3, lines 34-41).

Regarding claims 5-6, 8-13, and 17-22, Pounds '721 discloses monoethanolamine or polyamines (see abstract and column 3, lines 34-41).

5. Claim 25 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Landeck et al. US 5,413,627.

Landeck discloses a process for selective removal of sulfur compounds comprising treatment with a heterocyclic compound (see

Art Unit: 1754

abstract) comprising 2 nitrogen heteroatoms designated as 1,2 or 1,3-diazines (see column 4, lines 64-68).

***Allowable Subject Matter***

6. Claims 2-4, 7, and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose or suggest contacting with an effective amount of scavenger comprising the amines having the specified formulas and structures in the process for scavenging hydrogen sulfide and/or mercaptans of the instant claims 2, 4, 7, and 15-16.

***Response to Arguments***

8. Applicant's arguments filed 12/11/06 have been fully considered but they are not persuasive.

It is argued that the claims of Applicants recite... selected from four groups. This is not persuasive because Pounds discloses polymamines (column 7, lines 26-48), which is among Applicant's alternatively claimed four groups. Pounds further discloses monoethanolamine, which would at least suggest an amine oxide, another of Applicant's alternatively claimed four groups.

Art Unit: 1754

It is argued that the Examiner, in the instant rejection... as a hydrogen scavenger. This is not persuasive because the Examiner's basis upon which to be understood lies within the previous paragraph and previous Office Actions.

It is argued that in any event, Pounds discloses the use of a reaction product... as hydrogen scavenger. This is not persuasive for reasons already of record. Applicant provides no basis for the conclusion that the phrase "reaction product" somehow negates the disclosure of both monoethanolamine and polyamines, or that there would be neither in the final reaction product, which may simply be a the reaction product of mixing the two together. It seems clear that if a different compound were intended to be disclosed, that it would be specified. Instead, the cited prior art specifies both monoethanolamine and polyamines. Applicant urges that the intended use of the prior art monoethanolamine and polyamines as a hydrogen scavenger is patentable. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Art Unit: 1754

It is argued that in the Amendment Accompanying... ("AARCE"). This is not persuasive for the reasons above. Applicant's claimed compounds are disclosed and the "use" of the prior art compounds as a hydrogen sulfide scavenger is not patentable for the reasons above. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is argued that further, as discussed in the AARCE... (amine oxide) over Pounds. This is not persuasive because Pounds '721 discloses monoethanolamine or polyamines (see abstract and column 3, lines 34-41), which would at least suggest morpholine to one of ordinary skill.

It is argued that in summary, since Pounds does not disclose... therefore respectfully traversed. This is not persuasive for the reasons above.

It is argued that the Examiner has provided no explanation... are non-persuasive. This is not persuasive because Warrender discloses Applicant's alternatively claimed monoethanolamine and polyamines, which is the explanation of the rejection.

Art Unit: 1754

It is argued that as stated in the AARCE... of an aldehyde. This is not persuasive because Applicant provides no basis for the conclusion that the phrase "reaction product" somehow negates the disclosure of both monoethanolamine and polyamines, or that there would be neither in the final reaction product, which may simply be a the reaction product of mixing the two together. It seems clear that if a different compound were intended to be disclosed, that it would be specified. Instead, the cited prior art specifies both monoethanolamine and polyamines. Applicant urges that the intended use of the prior art monoethanolamine and polyamines as a hydrogen scavenger is patentable. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is argued that further, the rejection of claims 5 (morpholine)... referenced in Warrender. This is not persuasive because, for example, Warrender discloses morpholine (see Table 2, Amino-ethyl morpholine). The Examiner cannot "explain" the rejection any further than to repeat the grounds of rejection, as Applicant continually urges, since morpholine is disclosed



Art Unit: 1754

and there appears to be little more to explain, since §102 and §103 only require that each element of the claim be disclosed or suggested.

It is argued that none of claims... disclosed in Oakes. This is not persuasive because Applicant appears to admit that Oakes discloses alkanolamine, which would at least suggest an amine oxide, and polyalkanolamine, which would at least suggest a polyamine, since it is a polymer containing amine groups.

It is argued that further, Oakes does not disclose... Claims 21-23. This is not persuasive because Applicant appears to admit that alkanolamine and hydrogen sulfide is disclosed. Carbonyl sulfide is further disclosed, which would at least suggest organic sulfur compounds such as mercaptans to an ordinarily skilled artisan. The fact that applicant has recognized another advantage (scavenging mercaptans) which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is argued that the Examiner relies upon col. 4, ll. 64-68... 1,3-diazines. This is not persuasive because Landeck discloses many R substituent groups having 8 or more carbon atoms (see Tables).

**Conclusion**

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ